

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Gordon J. Harris	Art Unit :	2141
Serial No. :	09/891,020	Examiner :	Quang N. Nguyen, Ph.D.
Filed :	June 25, 2001	Conf. No. :	9419
Title :	TRUE ZERO-COPY SYSTEM AND METHOD		

Mail Stop Appeal Brief - Patents

Commissioner for Patents
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REPLY BRIEF

Pursuant to 37 C.F.R. § 41.41, Appellant responds to arguments raised in Examiner's Answer mailed on December 4, 2006 as follows.

Appellant maintains that the Examiner has not made out a prima facie case of obviousness for at least the following reasons. (A) Vishin's network (referred to as "network 114" in FIG. 1) is neither disclosed nor suggested to move data from a network layer into a physical memory page. (B) Vishin's network 114 is neither disclosed nor suggested to transmit and receive data as data packets. (C) Accordingly, neither Nijhawan nor Vishin provide any suggestion as to why one skilled in the art would be motivated to modify their systems with AAPA to transmit and receive data packets, and in particular, to transmit and receive data packets that are odd-sized, arrive asynchronously, and contain metadata embedded with real data.

In Answer to Appellant's Appeal Brief, the Examiner provides a "Webopedia" reference, that associates a switch with a network layer and argues that because a switch is disclosed in Vishin's network 114, Vishin's network 114 includes a network layer. Appellant has reproduced the definition of "switch" provided in Webopedia for reference:

(switch) (n.) (1) In networks, a device that filters and forwards packets between LAN segments. Switches operate at the data link layer (layer 2) and sometimes the network layer (layer 3) of the OSI Reference Model and therefore support any packet protocol. LANs that use switches to join segments are called switched LANs or, in the case of Ethernet networks, switched Ethernet LANs.

Appellant notes that the Webopedia reference is a newly cited reference that was never introduced during the prior prosecution.

Claims 1, 2, 4, 6, 7, 9, 10, 14, 15 and 17

Examiner's Response to Appellant's Argument (A)

On page 12 of the Answer, the Examiner responds to Appellant's argument (A), which asserts that Vishin's network is neither disclosed nor suggested to move data from a network layer into a physical memory page:

As to point (A), Vishin teaches a distributed computer system ... that can also send requests via a network 114 to pull in, i.e., to access, pages of data stored in the memory stores or secondary memory of other clusters 102 or other devices coupled to the network 114 via network switches as illustrated in Figs. 1 and 9 (Vishin, Figs. 1 and 9, and col. 1, lines 12-24).

Examiner respectfully submits that one of ordinary skill in the art would appreciate that in networks, network switches operate at the data link layer (layer 2) and sometimes at the network layer (layer 3) to filter and forward data packets between network segments (supported by "What is switch? - A Word Definition From the Webopedia Computer Dictionary", <http://www.webopedia.com/TERM/s/switch.html>), hence, in order to support the data operations such as to move, access, or write data from/to a remote cluster 102 connected to the network 114 via network switches by pulling in pages of data stored in the memory stores or secondary memory of other clusters 102 or other devices coupled to the network 114 via network switches as illustrated in Figs. 1 and 9, it should include the step of moving data from a network layer into the memory stores, i.e., moving data from network layer into a physical memory. Hence, Examiner respectfully submits "Vishin's network (as 'network 114') does support/include a network layer that routes data packets from a cluster 102 (i.e., with a source network address) to another cluster 102 (i.e., with a destination address)." [Examiner's Answer, page 12].

Appellant notes that FIG. 9 is the only place in Vishin's specification that describes the "switches" referred to by the Examiner in the foregoing passage. Furthermore, the description of the switches in FIG. 9 shows that the switches simply provide network interconnectivity between

the multiple clusters 102. Neither the text of Vishin's specification nor anywhere else in the Vishin patent describes the switches in any further detail.

Appellant would like to point out that within the context of a network, the term "switch" can have many definitions, some being associated with a network layer, such as the Webopedia definition provided by the Examiner, and some have no relation whatsoever to a network layer. For example, Appellant notes that The Authoritative Dictionary of IEEE Standard Terms, Seventh Edition, provides multiple definitions of the term "switch" that can be used within the context of a network. Of these definitions, definition (10) is the only definition that relates a switch to a network layer by reference to the ISO/IEC networking standard (which is sometimes referred to as the "OSI Reference Model"): *"(10) A layer 2 [data link layer] interconnection device that conforms to the ISO/IEC 10038 ... International Standard."*

The Authoritative Dictionary of IEEE Standard Terms also provides multiple definitions for the term "switch," that could be applied within the context of a network but that have no relation whatsoever to a network layer. For example, definition (5) describes a switch as a *"[d]evice that connects ringlets and has queues [and that] may be visible as a node ... may connect more than two ringlets ... [and] is generally assumed to connect multiple instances of the same bus standard"*; definition (6) describes a switch as *"[a] routing device ... providing a set of numbered node interfaces, constructed from one or more switch chips (or by other methods)"*; definition (8) describes a switch as *"[a] device for opening and closing or for changing the connection of a circuit ..."*; and definition (11) describes a switch as *"[a]n electronic device connected between two data lines [that] can exist in one of two states, referred to as 'open' and 'closed' [where] the state depends on a digital control variable ..."* The definition (11) states that such a switch could be used in systems containing multiple-switch networks.

As shown above, the term "switch" can have a variety of definitions within the context of a network. Although the disclosure of switches in FIG. 9 suggest that they provide network interconnectivity (see item 114) for transmitting data over the network 114, there is nothing in FIG. 9 nor in the description of the network 114 itself, that provides any suggestion that the switches of Vishin's network 114 use a network layer or that the network 114 is or includes a network layer.

Given that there are many definitions that do relate to network layers but that would appropriately define the switches of Vishin's network, Appellant contends that the Examiner has used claim 1 as a roadmap to select the Webopedia reference. In selecting the definition from the Webopedia reference to associate a switch with a network layer, the Examiner has used impermissible hindsight, and it is well established that the use of hindsight in making an obvious rejection is not permissible as a matter of law:

Determination of obviousness must be based on consideration of the claimed invention "as a whole," and cannot be based on the hindsight combination of components selectively called from the prior art to fit the parameters of the patented invention; in making this "as a whole" assessment, court requires a showing that an artisan of ordinary skill in the art at the time of invention, confronted by the same problems as the inventor and with no knowledge of the claimed invention, would select the various elements from the prior art and combine them in the claimed manner. *Medtronic Xomed, Inc. v. Cyprus ENT LLC* (F.Supp.2d, 2006 WL 2147704, M.D.Fla.,2006).

Appellant submits that a person of ordinary skill in the art would, when presented with multiple definitions of the term "switch" for use in a network, would not select the narrow definition provided in the Webopedia reference which is limited in context to networks that operate according to the OSI Reference Model – especially since there is nothing in Vishin that discloses or suggests that the network 114 is in any way related to the OSI Reference Model. Rather, Appellant contends that a person of ordinary skill in the art would select a definition that is not limited to networks that rely on network models or standards (e.g., the OSI Reference Model) that use a network layer. Examples of such definitions from The Authoritative Dictionary of IEEE Standard Terms are provided above and could be used with networks that do not include network layers. For example, a switch according to definition (11) can be used in a switch network, e.g., a circuit-switched network, which is a well-known network that does not have or use a network layer.

The Examiner has not met the burden of proof required to establish that a network layer is an inherent feature of Vishin.

Assuming *arguendo* that the Examiner's reliance on the Webopedia reference to define the switches of Vishin does not constitute impermissible hindsight, which Appellant does not concede, the Webopedia reference cannot be relied upon to assert that a network layer is an inherent feature of the Vishin's network 114 vis-à-vis the switches. The MPEP clearly points out that to properly show that an otherwise missing feature is inherent in a primary reference, the Examiner must provide extrinsic evidence that "make[s] clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill."¹ The MPEP further points out that "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic."²

In this regard, the Webopedia reference states that "[s]witches operate at the data line layer (layer 2) and *sometimes* the network layer (layer 3) of the OSI Reference Model ..." [emphasis added]. The Webopedia reference does not disclose any circumstances in which the switches would *necessarily* operate at the network layer. Furthermore, as shown above, the Examiner reasons on page 12 of the Answer that "one of ordinary skill in the art would appreciate that in networks, network switches ... operate *sometimes* at the network layer ..." [Emphasis added]. Appellant contends that the Examiner has not presented any evidence showing that the switches of Vishin's network 114 would necessarily operate at the network layer and thus has not met the burden, as required by law, for showing that the network layer is an inherent feature of Vishin's network 114.

Examiner's Response to Appellant's Argument (B)

On pages 12 and 13 of the Answer, the Examiner responds to Appellant's argument (B), which asserts that there is nothing in Vishin that discloses or suggests that Vishin's network 114 transmits and receives data as data packets:

¹ MPEP § 2131.01, section III

² MPEP §2112, section IV

As to point (B), Vishin teaches a distributed computer system having a primary translation lookaside buffer for storing page table entries and translating virtual (i.e., logical) addresses into physical addresses governed by a memory controller 112 that can also send requests via a network 114 to pull in, i.e., to access, pages of data stored in the memory stores or secondary memory of other clusters 102 or other devices coupled to the network 114 via network switches as illustrated in Figs. 1 and 9 (Vishin, Figs. 1 and 9, and col. 1, lines 12-24).

Examiner respectfully submits that since network switches operate at the data link layer (layer 2) and sometimes at the network layer (layer 3) to filter and forward data packets between network segments (as defined in "What is switch? - A Word Definition From the Webopedia Computer Dictionary", attached herein with the Examiner's Answer as a supportive reference), therefore, in order to support the data operations such as to move, access, or write data from/to remote clusters 102 or other devices connected to the network 114 via network switches as illustrated in Figs. 1 and 9, it should include the step of transmitting and receiving data as data packets over the network 114 via network switches.

Hence, Examiner respectfully submits, "Vishin's network (as "network 114") can be construed as a network that transmits and receives data as data packets, as claimed in the invention. [Examiner's Answer, pages 12 and 13].

As discussed above, with regard to the Examiner's Response to Appellant's Argument (A), the term "switch" can have a variety of definitions within the context of a network, many of which can be used in networks that do not receive and transmit data as data packets. FIG. 9, which is the only place in Vishin that describes the switches, shows that the switches provide "network interconnectivity" between the clusters 102; however, there is nothing else in FIG. 9 nor anywhere else in Vishin that discloses or suggests that switches of network 114 process data packets or that the network 114, itself, transmits and receives data as data packets.

In selecting the definition from the Webopedia reference to associate a switch with a network that transmits and receives data as data packets, the Examiner has used impermissible hindsight. Appellant submits that a person of ordinary skill in the art, when presented with multiple definitions of the term "switch" for use in a network, would not select the narrow definition provided in the Webopedia reference, which is limited in context to networks that transmit and receive data as data packets – especially since Vishin offers no description of how the network 114 is implemented or of the format of data transmitted over the network 114. For example, as argued in the Appeal Brief on pages 11 and 12, the network 114 of Vishin could just as well be a non-packet network that does not transmit and receive data as data packets. For

example, the network 114 could be implemented as a serial bus, a parallel bus; a circuit-switched network (e.g., a public switched telephone network); a time-division multiplexed network; an optical network, or one or more other non-packet networks.

Accordingly, Appellant contends that a person of ordinary skill in the art would select a definition for the term "switch" that is not limited to networks that transmit and receive data as data packets. Examples of such definitions can be found in the *The Authoritative Dictionary of IEEE Standard Terms*, e.g., see definitions (5), (6), (8), and (11) provided above. For example, a switch according to definition (11) may be used in a switch network, e.g., a circuit-switched network, which is a well-known non-packet network that establishes a dedicated circuit (or channel) between nodes and terminals and uses time-division multiplexing to transport data as a bit stream, rather than as data packets.

Examiner's Response to Appellant's Argument (C)

On pages 14 and 15 of the Answer, the Examiner responds to Appellant's argument (C), which asserts that neither Nijhawan nor Vishin provide any suggestion as to why one skilled in the art would be motivated to modify their systems with AAPA to transmit and receive data packets, and in particular, to transmit and receive data packets that are odd-sized, arrive asynchronously, and contain metadata embedded with real data:

As to point (C), contrary to the Appellant's assertion, Vishin's network 114 is not a simple connection between processor clusters implemented by a serial connection that sends data one bit at a time, but a switching network that can filter and forward data packets between network segments as described in points (A) and (B) above.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Nijhawan, Vishin and AAPA to include moving data from a network layer into a physical memory page, wherein the network layer receives and transmits the data as data packets that are odd sized, arrive asynchronously, and contain metadata embedded with real data since references are all directed to virtual memory management systems to access data over a computing network, hence, would be considered to be analogous based on their related fields of endeavor. . . [Examiner's Answer, pages 14 and 15].

As discussed above with regard to Appellant's arguments (A) and (B), the Examiner has used impermissible hindsight to "cherry pick" the Webopedia definition that associates a switch with a network layer and data packet transmission while ignoring other plausible definitions that describe a switch within the context of a network but that do not mention either a network layer or transmitting and receiving data as data packets. Therefore, despite the definition provided in the Webopedia reference, as a matter of law, Vishin's network 114 cannot be construed to be a network that transmits and receives data as data packets. Accordingly, neither Vishin nor Nijhawan (which lacks disclosure of network altogether) provide any suggestion as to why one skilled in the art would be motivated to modify their systems with AAPA to transmit and receive data packets, and in particular, to transmit and receive data packets that are odd-sized, arrive asynchronously, and contain metadata embedded with real data.

In responding to Appellant's argument (C), the Examiner further states on page 15 of the Answer:

In this case, Examiner has clearly shown that the combined teachings of the cited references and AAPA have rendered each and every aspect of Appellant's claimed invention and would have been obvious to one having ordinary skill in the art, and as such Examiner has met his burden in rendering Appellant's claim invention (for claims 1, 2, 4, 6, 7, 9, 10, 14, 15 and 17) unpatentable.
[Examiner's Answer, page 15].

Appellant asserts that even if Nijhawan, Vishin, and AAPA, could be combined in the manner suggested by the Examiner with the support of the Webopedia reference, (which the Appellant does not concede) the combination would fail to teach the network layer of Appellant's claim 1. For at least the reasons discussed above with respect to Appellants' argument (A), the Examiner has not provided a proper showing that the network layer is an inherent feature of Vishin's network 114. Furthermore, neither Nijhawan nor AAPA disclose or suggest a network layer.

Claims 3, 8, and 16

Examiner's Response to Appellant's Argument (D)

On pages 15 and 16 of the Answer, the Examiner responds to Appellants argument (D), which asserts that Nijhawan nowhere discloses or suggests "creating a plurality of logical pages based on the offset and length of the data associated with a network write operation," as required by claim 3:

As to point (D), Nijhawan teaches if the page being mapped by 32-bit linear address 81 is a 8K page, then the upper 9 bits of the 10+12 bit offset can be used to define the page number such that a 19-bit logical page number is provided and a 13-bit offset is provided as an offset within the 8K page (i.e., define/generate a logical page based on the offset and length of the data), wherein the logical page number is mapped or translated to a physical page number to access, i.e., to read and write data to the target physical memory/location (Nijhawan, col. 4, lines 3-6 and col. 8, lines 40-51).

Also, Examiner respectfully submits that Appellant acknowledges "Nijhawan describes using the offset of an 8K page to generate a logical page number" and "in Nijhawan, a logical page can assist a network write operation with accessing data stored in a physical page that is mapped to the logical page" (see page 14 of the Appeal Brief).

Hence, Nijhawan does teach or suggest, "a logical page number or an associated logic page is based on the offset and length of the data associated with a network write operation", as argued in page 14 of the Appeal Brief. [Examiner's Answer, pages 15 and 16].

With all due respect, Appellant believes that the Examiner has misconstrued Appellant's statement on page 14 of the Appeal Brief that "in Nijhawan, a logical page can assist a network write operation with accessing data stored in a physical page that is mapped to the logical page" to be an acknowledgement that the logical page of Nijhawan is created based on data associated with a network write operation. Appellant makes no such acknowledgement. On page 14 of the Appeal Brief, Appellant points to the passage of Nijhawan at col. 4, lines 3-6, to illustrate that Nijhawan's logical page, once created, may be used to assist a network write operation with accessing data stored in a physical page. However, there is nothing in Nijhawan that discloses or suggest that the logical page *is created* based on data associated with a network write operation. Rather, as argued on page 14 of the Appeal Brief, Nijhawan's logical page is created based on a mapping to a physical page.

Claims 5, 11, and 18

Examiner's Response to Appellant's Argument (E)

On pages 16 and 17 of the Answer, the Examiner responds to Appellants argument (E), which asserts that the Examiner has incorrectly interpreted "reallocating memory", as taught in Nijhawan, as being the same as "merging an existing physical memory cluster with a new physical cluster," as recited in claim 5:

As to point (E), before addressing the argument, Examiner respectfully submits that in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "the merging of an existing physical memory cluster with a new physical cluster involves combining the existing and new clusters such that they occupy either the same, overlapping, or contiguous segments of physical memory") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 76 USPQ2d 1657 (Fed. Cir. 1993).

In this case, Nijhawan teaches within the allocated 128K of memory, the OS inherently maps a 64K block of memory that resides in physical memory on 64K boundaries, which can be used for the desired 40K block, and then the extra memory on either side of the 64K boundaries can be reallocated (hence, Nijhawan does teach combining the existing and new physical memory) (Nijhawan, col. 9, line 61 - col. 10, line 16). [Examiner's Answer, pages 16 and 17]

Appellant reiterates the argument provided on page 15 of the Appeal Brief that there is a difference between the meanings of the terms "merging" and "reallocating." As described in Appellants specification in FIG. 7A-D and on page 22, lines 11-22, the merging of an existing physical memory cluster with a new physical memory cluster involves combining the new and existing physical memory clusters. Furthermore, the ordinary English definition of the term "merge", *to cause to combine or coalesce; unite*³, also requires that the new and existing physical memory clusters be combined. Although, claim 5 does not literally recite combining the new and existing physical memory clusters, the feature of "merging of an existing physical memory cluster with a new physical memory" inherently requires that the new and existing physical memory clusters be combined.

³ <http://dictionary.reference.com/browse/merge>

With all due respect, Appellant believes that the Examiner's assertion that the foregoing passage of Nijhwan teaches "combining the existing and new physical memory," is completely erroneous and without merit. This passage states that a portion of a 64K block memory within the allocated 128K "can be used for the desired 40K block, and the extra memory on either side of the 64K boundaries can be *reallocated*." [Emphasis added]. There is nothing in the foregoing passage or anywhere else in Nijhwan that would suggest that "reallocating" the extra memory would involve anything more than reassigning the extra memory for another use.⁴

Claims 19 and 20

Examiner's Response to Appellant's Argument (F)

On pages 17 and 18 of the Answer, the Examiner responds to Appellant's argument (F), which asserts that the Examiner's proffered combination of Nijhwan, Vishin, AAPA, and Richter amounts to an improper hindsight combination:

As to point (F), first, in response to applicant's arguments against the references individually "There is nothing in Richter that describes or suggests the use of translation lookaside buffer such as those disclosed in Nijhwan or Vishin", one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references ...

Second, in response to applicant's arguments that "neither Nijhwan nor Vishin disclose or suggest anything that would motivate a person of ordinary skill in the art to modify their systems to transmit data over a network as data packets, a feature required by AAPA and Richter", Examiner respectfully submits that Vishin does teach the network 114 is a switching network as illustrated in Fig. 9, that uses network switches to filter and forward/transmit data between network clusters 102 across the network 114 as data packets (Vishin, Figs. 1 and 9, and col. 1, lines 12-24). Hence, Vishin does teach a system that receives and transmits data over a network as data packets, a feature required by AAPA and Richter.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Nijhwan-Vishin-AAPA and Richter to use TCP/IP to transmit and receive the data as data packets over the Ethernet network since references are all directed to network connected computing systems to transmit and receive data over a computing network, hence, would be considered to be analogous based on their related fields of endeavor ...

⁴ For example, the term "reallocate" has the following ordinary English definition: "allocate, distribute, or apportion anew." - <http://dictionary.reference.com/browse/reallocate>

Third, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 269 (CCPA 1971). [Examiner's Answer, pages 17 and 18].

With regard to the Examiner's first argument, Appellant's statement in the Appeal Brief on page 17 that "there is nothing in Richter that describes or suggests the use of translation lookaside buffers" was provided to underscore the Appellant's assertion Richter does not disclose or suggest anything that would motivate a person of ordinary skill in the art to combine the teachings of Richter with the teachings of Nijhawan and Vishin.

With regard to the Examiner's second argument, Appellant contends that the Examiner's statement that "Vishin uses network switches to filter and forward/transmit data between network clusters 102 across the network 114 as data packets" is erroneous for at least the reasons provided above with regard to Appellant's arguments (A) and (B). For at least the reasons provided above with regard to Appellant's argument (C), neither Nijhawan nor Vishin disclose or suggest anything that would motivate a person of ordinary skill in the art to modify their systems according to AAPA to transmit data over a network as data packets. Richter is directed to a checksum method for detecting errors and verifying data in the form of data packets. Both AAPA and Richter require networks that transmit data as data packets; however, neither Nijhawan nor Vishin disclose or suggest anything that would motivate a person of ordinary skill in the art to modify their systems to transmit data over a network as data packets. When considered as a whole, the references fail to suggest the desirability of their combination.

With regard to the Examiner's third argument, Appellant asserts that a person of ordinary skill in the art, when confronted by the problems of Nijhawan and Vishin, would not look to AAPA or Richter for solutions (and vice versa) for at least the reason that neither Nijhawan nor Vishin disclose or suggests transmitting and receiving data as data packets. Therefore, a person of ordinary skill in the art would not be able to combine the features of

Nijhawan and Vishin with AAPA and Richter in the manner suggested by the Examiner without relying upon Applicant's disclosure as a template.

Claims 23-25

Examiner's Response to Appellant's Argument (G)

On pages 19 and 20 of the Answer, the Examiner responds to Appellant's argument (G), which asserts that the Examiner's proffered combination of Nijhawan, Vishin, AAPA, and Richter amounts to an improper hindsight combination:

As to point (G), first, in response to applicant's arguments against the references individually "There is nothing in Westbrook that describes or suggests the use of translation lookaside buffer such as those disclosed in Nijhawan or Vishin", one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Second, in response to applicant's arguments that "neither Nijhawan nor Vishin disclose or suggest anything that would motivate a person of ordinary skill in the art to modify their systems to transmit data over a network as data packets, a feature required by AAPA and Westbrook", Examiner respectfully submits that Vishin does teach the network 114 is a switching network as illustrated in Fig. 9, that uses network switches to filter and forward/transmit data between network clusters 102 across the network 114 as data packets (Vishin, Figs. 1 and 9, and col. 1, lines 12-24). Hence, Vishin does teach a system that receives and transmits data over a network as data packets, a feature required by AAPA and Westbrook. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Nijhawan-Vishin-AAPA and Westbrook to include the feature of data packets arriving in a sequence that is different from an original sequence ... [Examiner's Answer, pages 19 and 20].

With regard to the Examiner's first argument, Appellant's statement in the Appeal Brief on page 18 that "there is nothing in Westbrook that describes or suggests the use of translation lookaside buffers" was provided to underscore the Appellant's assertion Westbrook does not disclose or suggest anything that would motivate a person of ordinary skill in the art to combine the teachings of Westbrook with the teachings of Nijhawan and Vishin.

With regard to the Examiner's second argument, Appellant contends that the Examiner's above statement that "Vishin does teach [that] the network 114 is a switching network as illustrated in Fig. 9, that uses network switches to filter and forward/transmit data between network clusters 102 across the network 114 as data packets" is erroneous for at least the reasons provided above with regard to Appellant's arguments (A) and (B). For at least the reasons provided above with regard to Appellant's argument (C), neither Nijhawan nor Vishin disclose or suggest anything that would motivate a person of ordinary skill in the art to modify their systems according to AAPA to transmit data over a network as data packets. Westbrook is directed to a method for reordering data packets arriving in a sequence that is different from their original sequence. Both AAPA and Westbrook require networks that transmit data as data packets; however, neither Nijhawan nor Vishin disclose or suggest anything that would motivate a person of ordinary skill in the art to modify their systems to transmit data over a network as data packets.

In this regard, Nijhawan, Vishin, AAPA, and Westbrook, when considered as a whole, do not disclose or suggest the desirability of making their combination. Thus, to combine these references in the manner suggested by the Examiner, a person of ordinary skill in the art would need to use the Appellant's invention as a roadmap to select the references and piece them together. The Examiner's proposed combination of Nijhawan, Vishin, AAPA, and Westbrook amounts to a hindsight combination, which as discussed above, is improper as a matter of law.

For these reasons, and the reasons stated in the Appeal Brief, Appellant submits that the final rejection should be reversed.

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Respectfully submitted,

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